

extensibility of greater than about 10% prior to curing of the liquid resin.

7. The orthopedic cast bandage of claim 1 wherein the open mesh fibrous tape is a knitted polyester fabric comprising textured polyester yarns in the longitudinal direction.

8. The orthopedic cast bandage of claim 1 comprising at least two different coloring agents visibly disposed on at least a portion of the fibrous tape and forming a predetermined visible pattern of at least two colors on the fibrous tape, the coloring agents being stably retained by the fibrous tape in the presence of the hardenable liquid resin.

9. The orthopedic cast bandage of claim 8 wherein the coloring agents visibly disposed on at least a portion of the fibrous tape are pigment printed coloring agents.

10. The orthopedic cast bandage of claim 8 wherein the coloring agents visibly disposed on at least a portion of the fibrous tape are wet printed coloring agents.

11. The orthopedic cast bandage of claim 8 wherein the coloring agents visibly disposed on at least a portion of the fibrous tape are transfer printed coloring agents.

12. The orthopedic cast bandage of claim 1 wherein the coloring agent visibly disposed on at least a portion of the fibrous tape is a pigment printed coloring agent.

13. The orthopedic cast bandage of claim 1 wherein the coloring agent visibly disposed on at least a portion of the fibrous tape is a wet printed coloring agent.

14. The orthopedic cast bandage of claim 1 wherein the coloring agent visibly disposed on at least a portion of the fibrous tape is a transfer printed coloring agent.

15. An orthopedic cast bandage comprising:

(a) an open mesh fibrous tape;

(b) a hardenable liquid resin coated on the fibrous tape and being capable of curing to form a hardened plastic; and

(c) at least one dye penetrated into or chemically bound to at least a portion of the fibrous tape while the tape is in a soft state, the dye being stably retained by the fibrous tape in the presence of the hardenable liquid resin, wherein after the liquid resin becomes hard there is substantially no adverse effect on the dye.

16. The orthopedic cast bandage of claim 15 comprising at least two dyes penetrated into or chemically bound to at least a portion of the fibrous tape and forming a visible, dyed pattern of at least two colors on the fibrous tape.

17. The orthopedic cast bandage of claim 15 wherein the open mesh fibrous tape comprises polyester fibers.

18. The orthopedic cast bandage of claim 17 wherein the open mesh fibrous tape comprises textured polyester yarn in the longitudinal direction.

19. The orthopedic cast tape of claim 15 wherein the open mesh fibrous tape comprises glass fibers.

20. The orthopedic cast tape of claim 15 wherein the liquid resin coated open mesh fibrous tape is storage stable for a period in excess of one week at 50° C. when packaged in a sealed container.

21. The orthopedic cast bandage of claim 15 wherein the dye penetrated into or chemically bound to at least a portion of the fibrous tape comprises a sublimable disperse dye.

22. The orthopedic cast bandage of claim 15 wherein the sublimable disperse dye is disposed on only one side of the open mesh fibrous tape.

23. The orthopedic cast bandage of claim 15 wherein the hardenable liquid resin is a water hardenable polyurethane prepolymer.

24. An orthopedic cast comprising a plurality of layers of open mesh fibrous tape disposed within a hardened polymer matrix, wherein at least the outer layer of the open mesh fibrous tape comprises at least one dye penetrated into or chemically bound to at least a portion of the fibrous tape while the tape is in a soft state, the dye being stably retained by the fibrous tape in the presence of the hardened polymeric matrix, wherein after the hardened polymeric matrix becomes hard there is substantially no adverse effect on the dye.

25. A process for the production of an orthopedic cast bandage comprising the steps:

(a) contacting an open mesh fibrous tape with a substrate bearing a sublimable dye;

(b) heating the substrate and the open mesh fibrous tape to cause the sublimable dye to transfer to the open mesh fibrous tape and to thereby color at least a portion of the open mesh fibrous tape; and

(c) coating the colored, open mesh fibrous tape with a liquid resin capable of curing to form a hardened plastic.

26. The process of claim 25 wherein said open mesh fibrous tape comprises polyester fibers.

27. The process of claim 25 wherein the open mesh fibrous tape comprises glass fibers.

28. The process of claim 25 wherein the open mesh fibrous tape comprises multiple filament textured yarns.

29. The process of claim 25 wherein the substrate bearing a subliminal dye additionally bears at least a second subliminal dye and wherein both of said subliminal dyes are transferred to said open mesh fibrous tape in said heating step.

30. The process of claim 29 wherein said liquid resin capable of curing to form a hardened plastic is a water hardenable polyurethane prepolymer.

31. The process for preparing an orthopedic cast tape comprising the steps:

(a) providing a knit polyester fabric comprising textured polyester yarn in the longitudinal direction;

(b) heat treating the knit polyester yarn in a substantially tensionless condition at a first elevated temperature sufficient to cause the knit polyester tape to shrink longitudinally;

(c) transfer printing the shrunken knit polyester tape in a substantially tension-free state and at a second elevated temperature which is less than or about the same as the first elevated temperature; and

(d) coating the transfer printed knit tape with a liquid resin capable of curing to form a hardened plastic.

32. The process of claim 31 wherein said transfer printing step is conducted by contacting the shrunken knit polyester tape with a substrate bearing at least two subliminal dyes to thereby transfer both of said subliminal dyes to said shrunken knit polyester tape.

33. The process of claim 32 wherein said liquid resin capable of curing to form a hardened plastic is a water hardenable polyurethane prepolymer.

\* \* \* \*